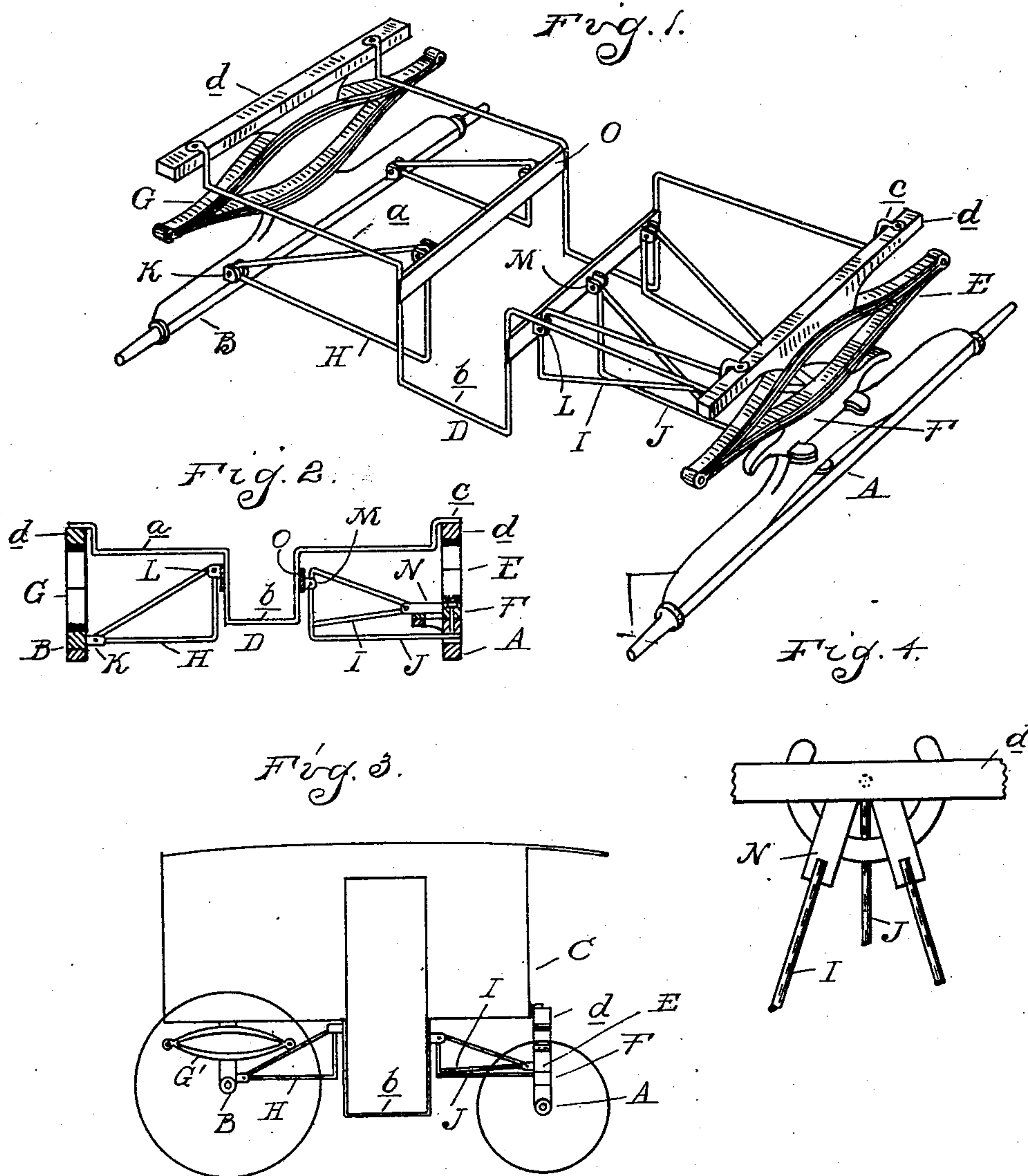


No. 714,135.

Patented Nov. 25, 1902.

A. P. BOWMAN.  
DROP BODY VEHICLE.  
(Application filed Mar. 10, 1902.)

(No Model.)



Witnesses  
B. Smith,  
A. B. Robertson,

Inventor  
A. P. Bowman  
By *[Signature]*



# UNITED STATES PATENT OFFICE.

AARON P. BOWMAN, OF PONTIAC, MICHIGAN, ASSIGNOR OF ONE-HALF TO  
EDWIN A. HILL, OF PONTIAC, MICHIGAN.

## DROP-BODY VEHICLE.

SPECIFICATION forming part of Letters Patent No. 714,135, dated November 25, 1902.

Application filed March 10, 1902. Serial No. 97,647. (No model.)

*To all whom it may concern:*

Be it known that I, AARON P. BOWMAN, a subject of the King of Great Britain, residing at Pontiac, in the county of Oakland and State of Michigan, have invented certain new and useful Improvements in Drop-Body Vehicles, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to vehicles of that class in which the body is provided with a central portion which is dropped between the forward and rear wheels. Such vehicles are frequently employed for delivery-wagons, as they enable the occupant to more readily enter and leave the vehicle than the higher frames.

It is the object of the present invention to provide a construction in which the body has a spring-support upon the forward and rear axles and in which the latter are held in proper relation to each other by reach members pivotally connecting the same to the central or dropped portion of the body.

The invention consists in the peculiar construction, arrangement, and combination of parts, as more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of the sill-frame for the body, showing the manner of supporting the same upon the axles and the pivotal reach connections. Fig. 2 is a longitudinal section thereof. Fig. 3 is a side elevation of the complete vehicle, showing a slightly-modified arrangement of rear spring. Fig. 4 is a plan of a portion of the reach connection.

A is the vehicle-axle, and B is the rear axle, which may be of any ordinary construction.

C is the body, and D is the sill-frame for the body.

The body-frame D comprises the parallel side-bars *a*, each of which has a central dropped portion *b*. At opposite ends these bars are provided with the securing hooks or angles *c*, which are attached to the cross-bars or end sills *d*.

E is an elliptical spring arranged beneath and secured to the forward end sills *d*.

F is a block secured to the lower bar of the

spring E and connected by a king-bolt to the forward axle A, this block forming the support for the fifth-wheel or circle-plate. The rear end sill *d* may be similarly supported upon the axle by means of the elliptic spring G, as shown in Fig. 1, or a pair of springs G' may be employed, as illustrated in Fig. 3.

The drop *b* in the sill-frame preferably extends below the level of the axles, and thus would interfere with any straight reach connection extending between said axles or between the rear axle and the block F. Furthermore, as the body is supported upon the springs E and G there will be a certain amount of vertical movement of the frame, which would interfere with any reach connection immediately below said drop. I have therefore devised a construction of reach in which the rear axle B is connected by pivotal links H with the drop portion of the frame D and the block F is similarly connected by the pivotal links I with the forward part of said drop portion. These links hold the axles from spreading without interfering with the free vertical movement of the body upon the springs. In order to afford a firmer support for the forward axle and king-bolt, another link J is centrally connected to the axle at its forward end and at its rear end is pivoted to the drop portion of the frame.

As shown, the links H, I, and J are preferably formed of bars bent into triangular shape and are pivoted to the axles and frame by ears K, L, M, and N. The ears on the body may be attached to cross-bars, such as O, or in any other way firmly secured to the drop portion of the frame. The pairs of links H H and I I are also preferably oppositely inclined toward each other, so as to form a truss connection between the axles and the body, preventing lateral oscillation.

With the construction as described it will be seen that the central portion of the body may be dropped as low as desired, and at the same time the body will have an easy spring-support upon the axles and the latter will be held from spreading.

I desire it understood that while herein I have described and claimed certain of the pivot-links as being connected to the forward "axle" the term is not intended to be limited



to constructions wherein the connection is directly with the forward axle, but the same is to be liberally construed to include any part of the front running-gear.

5 What I claim as my invention is—

1. In a vehicle, the combination with forward and rear axles, of a body having a central portion dropped between said axles, and a reach between said axles comprising said  
10 central dropped portion, a pair of pivotal links connecting the same with said rear axles, a second pair of pivotal links connecting said dropped portion with the circle-plate above the forward axle and another pivotal  
15 link extending from said dropped portion and connecting centrally with the forward axle.

2. In a vehicle, the combination with forward and rear axles, of a drop-frame adapted to support the vehicle-body, the same comprising continuous parallel side bars dropped at a point intermediate their ends, cross connections arranged transversely of the frame and connected to the dropped portion of the  
20 side bars, and link connections between the axles and the cross connections, said link connections being pivoted to swing vertically; substantially as described.

3. In a vehicle, the combination with forward and rear axles, of a drop-frame adapted to support the vehicle-body, the same comprising continuous parallel side bars dropped at a point intermediate their ends, cross connections arranged transversely of the frame and connected to the dropped portions of the  
30 side bars, and approximately triangular link connections between the axles and the cross connections, said triangular link connections being pivoted to swing vertically; substantially as described.

40 4. In a vehicle, the combination with forward and rear axles, of a body having a por-

tion dropped between said axles, a pair of oppositely-disposed vertically-arranged approximately triangular link connections between each side of said dropped portion and  
45 the axle nearest thereto, and horizontally-disposed pivotal connections between one end of each link and the dropped portion and between the opposite end of each link and the adjacent axle, whereby the links may swing  
50 in a vertical direction; substantially as described.

5. In a vehicle, the combination with forward and rear axles, of a body having a portion dropped between said axles, a pair of  
55 vertically-arranged approximately triangular link connections between opposite sides of said dropped portions and the respective axles, said triangular link connections being pivoted to swing vertically, and each pair of  
60 links at opposite ends of the vehicle being inclined toward each other; substantially as and for the purpose described.

6. In a vehicle, the combination with forward and rear axles, of a drop-frame adapted to support the vehicle-body, the same comprising continuous parallel side bars dropped at a point intermediate their ends, cross connections arranged transversely of the frame and connected to the dropped portions of the  
65 side bars, link connections between the axles and the cross connections, said link connections being pivoted to swing vertically, and springs interposed between the body of the vehicle and the drop-frame; substantially as  
75 described.

In testimony whereof I affix my signature in presence of two witnesses.

AARON P. BOWMAN.

Witnesses:

GEO. A. BROWN,

FLOYD B. BABCOCK.